CLAIMS

1. A recording sheet for ink jet printing comprising a support having coated onto said support at least one ink receiving layer comprising one or more binders and a mixture of different water insoluble, (i) inorganic oxides of the elements aluminium or silicium, (ii) oxide/hydroxides of the element aluminium or (iii) aluminium silicates, wherein at least one of said oxides, oxides/hydroxides or silicates has a pore volume of ≥ 40 ml / 100 g and is present in an amount of at least 8 weight percent relative to the total amount of all the water insoluble, inorganic oxides, oxide/hydroxides or silicates.

2. A recording sheet according to claim 1 wherein the mixture contains primary particles; wherein the mixture component with the largest volume have primary particles with an equivalent sphere diameter of less than 20 nm; and the mixture component with the smallest volume have primary particles with an equivalent sphere diameter that is at least $^1/_{20}$ of the equivalent sphere diameter of the primary particles with the largest volume.

3. A recording sheet according to claim 1 wherein at least one of said oxides, oxides/hydroxides or silicates with a pore volume of ≥ 40 ml / 100 g is present in an amount of at least 40 weight percent relative to the total amount of all the water insoluble, inorganic oxides, oxide/hydroxides or silicates.

4. A recording sheet according to claim 2 wherein the primary particles of the mixture component with the largest volume have an equivalent sphere diameter of less than 15 nm and the primary particles of the mixture component with the smallest volume have an equivalent sphere diameter that is at least $^1/_{10}$ of the equivalent sphere diameter of the primary particles of the mixture component with the largest volume.

5. A recording sheet according to claim 1 wherein one of the components of the mixture is of spherical shape and another one is of platelet shape.

6. A recording sheet according to claim 1 wherein one of the components of the mixture is of spherical shape and another one is of rod shape.

7. A recording sheet according to claim 1 wherein one of the components of the mixture is of spherical shape and another one is of fiber shape.

8. A recording sheet according to claim 1 wherein one of the components of the mixture is of platelet shape and another one is of fiber shape.

9. A recording sheet according to claim 1 wherein one of the components of the mixture is aluminium oxide/hydroxide and another one is γ- or δ-aluminium oxide.

10. A recording sheet according to claim 1 wherein one of the components of the mixture is aluminium oxide/hydroxide and another one is silicium dioxide.

11. A recording sheet according to claim 1 wherein one of the components of the mixture is γ- or δ-aluminium oxide and another one is silicium dioxide.

12. A recording sheet according to claim 10 wherein the silicium dioxide is positively charged.

13. A recording sheet according to claim 11 wherein the silicium dioxide is postively charged.

14. A recording sheet according to claim 1 wherein one of the components of the mixture is γ- or δ-aluminium oxide and another one is imogolite.

15. A recording sheet according to claim 1 wherein one of the components of the mixture is positively charged silicium dioxide and another one is imogolite.

16. A recording sheet according to claim 1 wherein one of the components of the mixture is aluminium oxide/hydroxide and another one is imogolite.

17. A recording sheet according to claim 16 wherein the aluminium oxide/hydroxide contains one or more of the elements with atomic number 15 to 57 in a total amount of 0.04 to 4.2 mole percent relative to Al_2O_3.

18. A recording sheet according to claim 1 wherein the binder or binders are gelatin, polyvinyl alcohol, derivates of polyvinyl alcohol, polyvinyl pyrrolidone or mixtures thereof.

19. Pigment containing coating compositions for the preparation of ink receiving layers for recording sheets for ink jet printing according to claim 1.